

Ser. No.10/523,182
 Amdt. dated April 16, 2008
 Reply to Office Action of December 20, 2007

PATENT
 PF020098
 Customer No. 24498

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1 – (currently amended) Broadband monopole antenna, comprising a radiating element mounted on an earth plane forming support of annular shape, wherein the radiating element is constituted by a hollow element having a “cup” shape integral with the earth plane forming support, said radiating element and said support being made on the basis of a metallizable plastic or foam, ~~2 – (currently amended) Antenna according to Claim 1,~~ wherein the external profile of the “cup”-shaped radiating element ~~is being~~ given by the following equations:

For $1.3 < t < 4.075$

$$x(t) = 8 + 1.9 * t * \cos(t - 7)$$

$$z(t) = 2.5 + 12.5 \frac{\sin(t)}{t}$$

2 – (cancelled)

3 – (previously amended) Antenna according to Claim 1, wherein the earth plane forming support of annular shape consists of a circular annulus.

4 – (previously amended) Antenna according to Claim 3, wherein the external end of the annulus is inwardly curved in such a way as to form a semi-toroidal element.

5 – (currently amended) Process for manufacturing an a broadband monopole antenna according to Claim 1, comprising radiating element constituted by a hollow element having a “cup” shape, said radiating element being mounted on an earth plane forming support, said process comprising a step of making a the “cup”-shaped radiating element and an integral with the earth plane forming support by injection moulding of a

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plastic followed by a step of metallizing at least the exterior surface of the "cup"-shaped element and of the part forming earth plane.

6 - (previously amended) Process according to Claim 5, wherein the metallization is achieved by vacuum spraying of the metal.

7 - (currently amended) Process for manufacturing ~~an a broadband monopole antenna according to Claim 1, comprising a radiating element constituted by a hollow element having a "cup" shape, said radiating element being mounted on an earth plane,~~ comprising a step of making ~~a the~~ "cup"-shaped radiating element ~~and integral with the~~ earth plane forming support by machining a single block of ~~plastic-metallizable~~ foam followed by a step of metallizing at least the exterior ~~hollow~~ surface of the "cup"-shaped element and of the part forming earth plane.

8 - (previously amended) Process according to Claim 7, wherein the metallization is achieved by atomization of an electrically conducting paint.

9 - (previously presented) Process according to Claim 5, wherein the metallization is achieved by an electrochemical process.